

Identifying the Gaps between the Kentucky Core Academic Standards (KCAS) for Mathematics and school's current curriculum

This process is designed to guide schools in identifying where gaps in instruction may occur as they begin to transition to the new Kentucky Core Academic Standards (KCAS) for Mathematics. Teachers and administrators will need to plan how to address these gaps for students who will miss exposure to content. The process outlined in this document sets the stage for addressing these gaps and for continued collaboration among colleagues to strengthen understanding of the KCAS. The first step is to identify the gaps.

Teachers will begin by working individually, then in grade level teams. Finally, they will share with teachers from across grade levels. This process works best when there is representation from all grade levels in the room. It is further recommended that teachers have the opportunity to work with teachers from other schools in their district.

A gap occurs when content previously taught at one grade level is now included in the KCAS at an earlier grade level. Thus, as students move to the next grade, they will miss exposure to that content. The gap may occur between one or more grade levels.

A gap does not occur if the content is now present in an upper grade level. This simply means that students will be exposed to that content in a later grade.

Increased rigor is not a gap in standards. This should be noted to make sure that teachers are reflecting the rigor in their instruction.

Note that this process provides one way to identify the instructional gaps that may occur during this transitional period. Some schools have designed other processes which they have found to be useful and reliable.

Materials:

- *A Closer Look at the Progressions of the Kentucky Core Academic Standards, grades K – HS*
 - You may choose to only use the standards pages – some grades have 2 pages and will need to be copied front/back
 - HS is organized by conceptual categories
 - HS teachers will also need [Common Core State Standards: Appendix A](#)
 - MS teachers comparing curriculum for HS Algebra I in MS will also need Appendix A
- Highlighters (variety of colors)
- Current curriculum document (you may ask teachers to bring their copies)
- Access to the on-line KCAS crosswalk document:
 - PDF, Excel or Bookmarked version with guide can be found at:
 - [http://www.education.ky.gov/KDE/Instructional+Resources/Curriculum+Documents+and+Resources/Program+of+Studies/Crosswalk+-+Common+Core+State+Standards+\(CCSS\)+Comparison+to+Kentucky+State+Standards.htm](http://www.education.ky.gov/KDE/Instructional+Resources/Curriculum+Documents+and+Resources/Program+of+Studies/Crosswalk+-+Common+Core+State+Standards+(CCSS)+Comparison+to+Kentucky+State+Standards.htm)
- Chart paper (tape or sticky chart paper)
- Markers

- Sticky notes
- *Identified Gap* sheets for grade level groups (preferably on computer)

Organization:

Teachers sit in grade level groups

Process:

1. Provide each teacher the KCAS grade level standards for the grade they teach. They should have access to standards for a few grades before and the grades that follow for reference. You may also choose to provide the progressions.
2. Individually, teachers read carefully through the KCAS for their grade level.
Ask them to:
 - a. **Highlight what is new to their grade level or course:** what is not currently included in their grade level curriculum.
 - b. Underline anything that is confusing or that they are unsure how to teach.
 - c. Star (*) any standards that they identify as a significant increase in rigor.
3. Next, teachers look back at their current curriculum.
Ask them to:
 - a. **Highlight what they have been teaching that is not in the KCAS for their grade level or course.**
4. Teachers from the same grade level share and discuss their findings.
Ask them to:
 - a. Come to agreement on what they previously taught that is not addressed in the KCAS for their grade.
 - b. Chart. Be sure to label the chart with the grade level.
 - c. Have participants post charts in grade level order.
5. Teachers from across grade levels use a carousel strategy to review posters.
Ask them to:
 - a. Review all grade level posters and look for any content posted that now shows up in the KCAS at their grade level. Use standards as the reference. You may wish to use the KCAS codes as quick references.
 - b. Use sticky notes or different color markers to identify the grade level and the standard(s) where it is included in the KCAS and to share other comments regarding what they notice or what they would like to learn more about.
6. Teachers return to grade level teams with the chart from their grade level.
Ask them to discuss the chart, beginning with the question below:
 - a. Has what you highlighted in your curriculum (and charted) been identified in a previous grade in the KCAS?
 - **If yes, this identifies a gap which needs to be filled.**
 - Decide the grade or grades where the gap must be addressed. Note that if there is more than one grade between the content covered, each of those grades can share filling the gap. For instance, if content was previously covered in 8th grade, but now is part of the 6th grade KCAS, 7th and 8th grade teachers should work together to plan how to best address the gap for those students.

- ***If no, careful discussions and decisions will need to occur*** about how to address this in your district. Does what you identified support standards in other ways? This is an important discussion, but is not part of this process. See next steps below.
- b. Begin completing the *Identified Gap* sheet.
 - Fill in gaps identified in step 6a.
 - List the grade(s) identified in step 6a.
 - Identify teachers who may be resources because they have taught the content.
- c. Teachers use the crosswalk to check for gaps they may have missed and to look for other connections between the KCAS and the Program of Studies.

Next steps:

- Continue the *Identified Gap* sheet by brainstorming ideas for filling gaps. Identify the teams who will need to address the gaps and provide time for them to collaborate with each other and leadership. Filling gaps should not be the sole responsibility of any one teacher.
- Collaborate to develop a plan for addressing the gaps. Identify the timeline for when the gap should be filled on the *Identified Gap* sheet. This may be a multi-year plan and schools may have to set priorities if they discover several gaps. Note that creative solutions may be necessary to address gaps. (The crosswalk may be helpful to identify areas for emphasis by looking at strong and weak matches identified in the crosswalk.) Include in the plan how progress will be monitored.
- Facilitate a similar activity to have teachers chart what they marked in the KCAS as unclear, a new concept, or what they have not taught before. Use the carousel approach for teachers to review charts and make note of their expertise and willingness to share ideas. Add teacher resources to the *Identified Gap* sheet.
- Use the “critical areas” (similar to the NCTM Focal Points) in grades K-8 to frame curriculum to better understand how standards work together. At HS, use the Appendix A to locate critical areas for courses.
- Understand the learning progressions in order that curriculum is not overlooked. Make time for teachers to share, discuss and collaborate to deepen understanding of the KCAS. Coaches may also use this information to provide small group mini-sessions on specific content. Vertical teams should use the critical areas of focus as a way to make connections between the grades and see how one grade builds on the learning that is expected in the previous year and for the next year.
- Develop a plan to address the standards that are completely new to a grade level or school level. Are there prerequisite skills or concepts that need to be in place? What resources are available? And what resources, including PD are needed?
- Continue to discuss the mathematical practices and their role in grade level curriculum.

Identified Gaps

Content gap to be filled <i>(identified in step 6a)</i>	Grade(s) where gap is to be filled	Teams responsible	Plan for transition	Teacher resources	Date when gap should be filled

Record of completing this sheet

[illegible]